

Remarks/Arguments

Reconsideration of the above-referenced application is requested. Claims 1-3 and 10-18 are in the case. Claims 4-9 have been canceled.

Joel Goldstein, Ronald Pangrazi, and the undersigned, wish to thank the Examiner for granting an interview on May 20, 2004. The interview included a discussion of the claims in comparison to the two prior art references cited by the Examiner (US 4,322,516 and US 6,197,878). The Examiner suggested that the claims be amended to indicate the use of the polymer binder.

Claim 1 has been amended to put it in Jepson format and thus clarify that the invention is directed to alkylphenol ethoxylate free polymer emulsion binders for use in a crepe process. Claims 3 and claims 10 to 18 have been amended to be directly or indirectly dependent upon claim 1.

It has been found in this invention that in order for alkylphenol ethoxylate free polymer emulsion binders to be effective in crepe processes they must possess certain properties. The peel value must be 35 to 200 % of an alkylphenol ethoxylate containing control binder, and the cure profile of the binders must be such that 55 % cure is achieved within 30 seconds of exposure to cure temperature. Heretofore, these properties and binders having these properties have not been identified or disclosed for alkylphenol ethoxylate free polymer binders that are useful in crepe processes.

102(b) and 103(a) Rejections

Claims 1-4 have been rejected under 35 USC 102(b) as anticipated by or, in the alternative, under 35 USC 103(a) as being unpatentable over Wiest et al. (US 4,322,516), and under 37 USC 102(a or e) as anticipated by or, in the alternative, 35 USC 103(a) as being unpatentable over Murray et al (US 6,197,878).

Rejection under 35 USC 102(b)

The entire thrust of this application is to alkylphenol ethoxylate free polymer emulsions that are effective in crepe processes. Wiest et al. disclose a copolymer having

properties which make it effective as a pressure sensitive adhesive. The use of the copolymer as a binder in a crepe process, particularly a double recrepe process, is not taught or suggested. The pressure sensitive adhesive of Wiest et al. would not have been expected to be effective in a crepe process because pressure sensitive adhesives have different properties from binders used in creping processes. Pressure sensitive adhesives are not used to bind fibers in a nonwoven web.

Claim 4 has been canceled.

Since Wiest et al. do not disclose a polymer emulsion binder used in a crepe process or that has the properties as recited in claims 1-3, claims 1-3 are not anticipated by Wiest et al. and the rejection should be withdrawn.

Murray et al. disclose diol polymers that are useful for thermoplastic engineering resins, elastomers, films, sheets and container plastics (col. 13, lines 22-24). The diol latex compositions can be used in a variety of coating compositions (col. 13, lines 24-46). Since Murray et al. do not disclose a polymer emulsion binder for use in a crepe process and having the properties as recited in claims 1-3, claims 1-3 are not anticipated by Murray et al. and the rejection should be withdrawn.

Rejection under 35 USC 103(a)

Claims 1-3 would not have been obvious based on the disclosure of Wiest et al. since there is no teaching or suggestion that the polymer latexes disclosed therein could be used as a binder for nonwoven fibers in a crepe process. Wiest et al. teach that the polymer disclosed therein is used for adhesive applications; e.g., adhesive tapes, adhesive sheets, self-adhesive carpets, and self-adhesive assembly parts (col. 7, lines 17-20). The polymers would not inherently have the properties required for an alkylphenol ethoxylate free polymer emulsion binder that can be used for binding fibers in a creping process. Also, Wiest et al. do not teach or suggest the properties that are needed to obtain a polymer emulsion that can be used as a binder in a creping process. Based on the above remarks, it is submitted that the claimed invention would not have been obvious based on the teachings of Wiest et al. and the rejection under 35 USC 103(a), based on Wiest et al., should be withdrawn.

Even assuming claims 1-3 would have been obvious based on the disclosure of Wiest et al., data presented in the instant case show that polymer emulsions prepared with the same monomers and surfactants, but in different proportions, do not necessarily have the properties needed for use in a creping process. See Table 1, page 10, in which the polymers

of Runs 10-14 are prepared using the same surfactants. The data show that the polymers of Runs 10-13 would not have been appropriate for use in a crepe process; but, the polymer of Run 14 would be appropriate. Data presented in this application rebut a prima facie obviousness rejection based on Wiest et al.

Based on the uses disclosed by Murray et al. and the fact that Murray et al. do not teach or suggest use of the diol polymers as binders or as binders for use in a crepe process, a person of ordinary skill in the art would not expect the polymer latexes disclosed by Murray et al. to have the properties that would make them effective as binders in a crepe process. Therefore, the rejection under 35 USC 103(a), based on Murray et al., should be withdrawn.

The Examiner stated that:

"...it is reasonable that the polymers of Wiest et al. or Murray et al. would possess the presently claimed properties since the composition of Wiest et al. or Murray et al., based on the description, are essentially the same as the claimed composition..."

In response, there is nothing in the disclosure of Wiest et al. or Murray et al. that would suggest that the compositions are essentially the same as the claimed composition. Since the compositions of Wiest et al. or Murray et al. are used for entirely different applications, the skilled artisan would not believe that they would have the same properties as the claimed compositions. It is well known to those of ordinary skill in the art that polymer compositions having the same components can vary widely in properties. Without some teaching of use of the polymers as binders, especially in a crepe process, it cannot be asserted that the polymers disclosed by Wiest et al. and Murray et al. would inherently have the same properties as the claimed compositions.

In view of the amendments and arguments made herein, it is believed that the application is in condition for allowance and should be passed to issue.

Respectfully submitted,

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